



## Complete Summary

### TITLE

Comprehensive diabetes care: percentage of members 18 through 75 years of age with diabetes mellitus (type 1 and type 2) whose most recent blood pressure reading is less than 140/90 mm Hg.

### SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. various p.

## Measure Domain

### PRIMARY MEASURE DOMAIN

Outcome

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the percentage of members 18 through 75 years of age with diabetes mellitus (Type 1 and Type 2) who were continuously enrolled during the measurement year and whose most recent blood pressure reading is less than 140/90 mm Hg during the measurement year.

This measure is a component of a composite measure; it can also be used on its own.

**Note from the National Quality Measures Clearinghouse (NQMC):** For this measure there is both Administrative and Hybrid Specifications. This NQMC measure summary is based on the Administrative Specification. Refer to the original measure documentation for details pertaining to the Hybrid Specification.

### RATIONALE

Diabetes is a group of diseases characterized by high blood glucose levels caused by the body's inability to correctly produce or use the hormone insulin. It is one of the leading causes of death and disability in the U.S. More than 20 million Americans live with diabetes today. One-third of people with diabetes are not diagnosed. Much of the burden of illness and cost of diabetes treatment is attributed to potentially preventable long-term complications including heart disease, blindness, kidney disease and stroke. Timely screening and treatment can significantly reduce the disease burden.

## **PRIMARY CLINICAL COMPONENT**

Diabetes mellitus; blood pressure

## **DENOMINATOR DESCRIPTION**

Members with diabetes (Type 1 and Type 2) 18 through 75 years of age as of December 31 of the measurement year (see the "Description of Case Finding" and the "Denominator Inclusions/Exclusions" fields in the Complete Summary)

## **NUMERATOR DESCRIPTION**

Use automated data to identify the most recent blood pressure (BP) reading during the measurement year. The member is numerator compliant if the BP is less than 140/90 mm Hg. If there are multiple BPs on the same date of service, use the lowest systolic and lowest diastolic BP on that date as the representative BP. See the related "Numerator Inclusions/Exclusions" field in the Complete Summary.

## **Evidence Supporting the Measure**

### **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## **Evidence Supporting Need for the Measure**

### **NEED FOR THE MEASURE**

Overall poor quality for the performance measured  
Use of this measure to improve performance  
Variation in quality for the performance measured

### **EVIDENCE SUPPORTING NEED FOR THE MEASURE**

National Committee for Quality Assurance (NCQA). The state of health care quality 2008: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2008. 131 p.

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Accreditation  
Decision-making by businesses about health-plan purchasing  
Decision-making by consumers about health plan/provider choice  
External oversight/Medicaid  
External oversight/Medicare  
External oversight/State government program  
Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Managed Care Plans

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

### TARGET POPULATION AGE

Age 18 through 75 years

### TARGET POPULATION GENDER

Either male or female

### STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

See the "Rationale" field.

## **ASSOCIATION WITH VULNERABLE POPULATIONS**

Unspecified

## **BURDEN OF ILLNESS**

- People with diabetes are 2 to 4 times more likely than others to die as a result of heart disease.
- Diabetes accounts for almost 45 percent of new cases of kidney failure.
- 60 to 70 percent of people with diabetes have mild to severe forms of nervous system damage, including impaired sensation in the feet and hands and carpal tunnel syndrome.
- Diabetic retinopathy, the damage of blood vessels in the retina, is the most common diabetic eye disease and a leading cause of blindness, causing 12,000 to 24,000 new cases of blindness annually.
- Patients with diabetes who maintain near-normal hemoglobin A1c (HbA1c) levels gain, on average, an extra five years of life, eight years of eye sight and six years of freedom from kidney disease.

## **EVIDENCE FOR BURDEN OF ILLNESS**

American Heart Association. Heart disease and stroke statistics - 2008 update. Dallas (TX): American Heart Association; 2008. 43 p.

Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2007. Atlanta (GA): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2008. 14 p.

Heart disease and stroke statistics - 2007 update. Dallas (TX): American Heart Association; 2007. 43 p.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Kidney disease of diabetes. Bethesda (MD): National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); 2008 Jan. 8 p.

National Institute of Neurological Disorders and Stroke (NINDS). Peripheral neuropathy fact sheet. [internet]. Bethesda (MD): National Institute of Neurological Disorders and Stroke (NINDS); 2008 Jan 10[accessed 2008 Feb 28].

## **UTILIZATION**

Unspecified

## **COSTS**

- The cost of diabetes totaled \$174 billion in 2002, including \$58 billion in indirect costs, such as work loss, mortality and disability.

- Medical costs for people with diabetes are more than double the medical costs of others.

## **EVIDENCE FOR COSTS**

Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2007. Atlanta (GA): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2008. 14 p.

Hogan P, Dall T, Nikolov P. Economic costs of diabetes in the US in 2002. *Diabetes Care* 2003 Mar;26(3):917-32. [31 references] [PubMed](#)

## **Institute of Medicine National Healthcare Quality Report Categories**

### **IOM CARE NEED**

Living with Illness

### **IOM DOMAIN**

Effectiveness

## **Data Collection for the Measure**

### **CASE FINDING**

Users of care only

### **DESCRIPTION OF CASE FINDING**

Members with diabetes (Type 1 and Type 2) 18 through 75 years of age as of December 31 of the measurement year who were continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days (commercial, Medicare) during the measurement year and not more than a one-month gap in coverage (Medicaid)

### **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

### **DENOMINATOR INCLUSIONS/EXCLUSIONS**

#### **Inclusions**

Members with diabetes (Type 1 and Type 2) 18 through 75 years of age as of December 31 of the measurement year

*Two methods to identify members with diabetes:* pharmacy data and claim/encounter data. The organization must use *both* to identify the eligible

population, but a member only needs to be identified in one to be included in the measure. Members may be identified as having diabetes during the measurement year or the year prior to the measurement year.

*Pharmacy data.* Members who were dispensed insulin or oral hypoglycemics/antihyperglycemics during the measurement year or the year prior to the measurement year on an ambulatory basis. Refer to Table CDC-A in the original measure documentation for prescriptions to identify members with diabetes.

*Claim/encounter data.* Members who had *two* face-to-face encounters with a diagnosis of diabetes (refer to Table CDC-B in the original measure documentation for codes to identify diabetes) on different dates of service in an outpatient setting or nonacute inpatient setting, or one face-to-face encounter in an acute inpatient or emergency department (ED) setting during the measurement year or year prior to the measurement year. The organization may count services that occur over both years. Refer to Table CDC-C in the original measure documentation for codes to identify visit type.

## **Exclusions**

- Exclude members with a diagnosis of polycystic ovaries (refer to Table CDC-O in the original measure documentation for codes to identify exclusions) who did not have any face-to-face encounters with the diagnosis of diabetes (refer to Table CDC-B in the original measure documentation for codes to identify diabetes), in any setting, during the measurement year or year prior to the measurement year. Diagnosis can occur at any time in the member's history, but must have occurred by December 31 of the measurement year.
- Exclude members with gestational diabetes or steroid-induced diabetes (refer to Table CDC-O in the original measure documentation) who did not have any face-to-face encounters with a diagnosis of diabetes (refer to Table CDC-B in the original measure documentation for codes to identify diabetes), in any setting, during the measurement year or year prior to the measurement year. Diagnosis can occur during the measurement year or year prior to the measurement year, but must have occurred by December 31 of the measurement year.

## **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

## **DENOMINATOR (INDEX) EVENT**

Clinical Condition  
Encounter  
Therapeutic Intervention

## **DENOMINATOR TIME WINDOW**

Time window precedes index event

## **NUMERATOR INCLUSIONS/EXCLUSIONS**

### **Inclusions**

Use automated data to identify the most recent blood pressure (BP) reading during the measurement year. The member is numerator compliant if the BP is less than 140/90 mm Hg. If there are multiple BPs on the same date of service, use the lowest systolic and lowest diastolic BP on that date as the representative BP. Refer to Table CDC-N and use the most recent code to evaluate whether the member is numerator compliant.

**Note:** An organization that uses Current Procedure Terminology (CPT) Category II codes to identify numerator compliance for this indicator must search for all codes in Table CDC-N and use the most recent code during the measurement year to evaluate whether the member is numerator compliant for both systolic and diastolic levels.

### **Exclusions**

The member is not compliant if the blood pressure is greater than or equal to 140/90 mm Hg or if there is no automated BP reading during the measurement year.

## **MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

## **NUMERATOR TIME WINDOW**

Fixed time period

## **DATA SOURCE**

Administrative data  
Pharmacy data

## **LEVEL OF DETERMINATION OF QUALITY**

Not Individual Case

## **OUTCOME TYPE**

Clinical Outcome

## **PRE-EXISTING INSTRUMENT USED**

Unspecified

## **Computation of the Measure**

## **SCORING**

Rate

## **INTERPRETATION OF SCORE**

Better quality is associated with a higher score

## **ALLOWANCE FOR PATIENT FACTORS**

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

## **DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS**

This measure requires that separate rates be reported for commercial, Medicare, and Medicaid product lines.

## **STANDARD OF COMPARISON**

External comparison at a point in time  
External comparison of time trends  
Internal time comparison

## **Evaluation of Measure Properties**

## **EXTENT OF MEASURE TESTING**

Unspecified

## **Identifying Information**

## **ORIGINAL TITLE**

Comprehensive diabetes care (CDC) [blood pressure control (less than 140/90 mm Hg)].

## **MEASURE COLLECTION**

[HEDIS® 2009: Healthcare Effectiveness Data and Information Set](#)

## **MEASURE SET NAME**

[Effectiveness of Care](#)

## **COMPOSITE MEASURE NAME**

[Comprehensive Diabetes Care](#)

## **DEVELOPER**

National Committee for Quality Assurance



**FUNDING SOURCE(S)**

Unspecified

**COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE**

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

**FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST**

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

**ENDORSER**

National Quality Forum

**ADAPTATION**

Measure was not adapted from another source.

**RELEASE DATE**

2006 Jan

**REVISION DATE**

2008 Jul

**MEASURE STATUS**

This is the current release of the measure.

This measure updates a previous version: National Committee for Quality Assurance (NCQA). HEDIS 2008. Healthcare effectiveness data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2007 Jul. various p.

**SOURCE(S)**

National Committee for Quality Assurance (NCQA). HEDIS® 2009: Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2008 Jul. various p.

## **MEASURE AVAILABILITY**

The individual measure, "Comprehensive Diabetes Care (CDC) [Blood Pressure Control (Less Than 140/90 mm Hg)]," is published in "HEDIS® 2009. Healthcare Effectiveness Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: [www.ncqa.org](http://www.ncqa.org).

## **COMPANION DOCUMENTS**

The following is available:

- National Committee for Quality Assurance (NCQA). The state of health care quality 2008: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2008. 131 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: [www.ncqa.org](http://www.ncqa.org).

## **NQMC STATUS**

This NQMC summary was completed by ECRI Institute on February 19, 2008. The information was verified by the measure developer on April 24, 2008. This NQMC summary was updated by ECRI Institute on March 12, 2009. The information was verified by the measure developer on May 29, 2009.

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